AMENDMENT UNDER 37 C.F.R. § 1.114(c) Attorney Docket No.: Q93262

Appln. No.: 10/571,054

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the

application:

**LISTING OF CLAIMS:** 

1.-16. (Canceled).

17. (Currently amended): A dye-sensitized solar cell comprising a transparent

electrode substrate, a working electrode having an oxide semiconductive porous film formed on

the transparent electrode substrate which is made of oxide semiconductive fine particles and

having a photo-sensitizing dye absorbed thereon, and a counter electrode provided opposing the

working electrode, and an electrolyte layer comprising the an electrolyte composition which is

provided between the working electrode and the counter electrode, and wherein the electrolyte

composition comprises an ionic liquid and a halogen-based redox pair, wherein the ionic liquid

includes a cation having a quaternized nitrogen atom and a dicyanoamide anions anion, the cation

being an imidazolium cation having a quaternary nitrogen atom or a pyridinium cation having a

quaternary nitrogen atom.

18. (Original): The dye-sensitized solar cell according to claim 17 wherein the

transparent electrode substrate comprises a conductive layer made of a conductive material on a

transparent substrate.

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19. (Original): The dye-sensitized solar cell according to claim 18 wherein the transparent substrate includes glass, a transparent plastic substrate, and a polished plate of a ceramic.

- 20. (Original): The dye-sensitized solar cell according to claim 18 wherein the conductive layer includes a transparent oxide semiconductor selected from the group consisting of tin-doped indium oxide (ITO), tin oxide (SnO<sub>2</sub>), fluorine-doped tin oxide (FTO), and mixtures thereof.
- 21. (Original): The dye-sensitized solar cell according to claim 18 wherein the conductive layer has a thickness of between about  $0.05~\mu m$  and  $2.0~\mu m$ .
- 22. (Original): The dye-sensitized solar cell according to claim 17 wherein the oxide semiconductor porous film is a porous thin layer with a thickness between about 0.5 and 50 μm containing as a main component oxide semiconductor fine particles which include titanium oxide (TiO<sub>2</sub>), tin oxide (SnO<sub>2</sub>), tungsten oxide (WO<sub>3</sub>), zinc oxide (ZnO), niobium oxide (Nb<sub>2</sub>O<sub>5</sub>), and mixtures thereof, where said oxide semiconductor fine particles have an average particle diameter between 1 nm to 1000 nm.
- 23. (Original): The dye-sensitized solar cell according to claim 17 measuring photoelectric conversion efficiency greater than 4.5%.

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24. (New): The dye-sensitized solar cell according to claim 17, wherein the cation further comprises a substituent group on the quaternary nitrogen atom, the substituent group being selected from a group consisting of an alkyl group, a cycloalkyl group, an aryl group, and an aralkyl group.

- 25. (New): The dye-sensitized solar cell according to claim 17, wherein the cation further comprises a substituent group on a different atom of the imidazolium or pyridinium ring than the quaternized nitrogen atom, the substituent being selected from a group consisting of an alkyl group, a cycloalkyl group, an aryl group, and an aralkyl group.
- 26. (New): The dye-sensitized solar cell according to claim 17, wherein the ionic liquid comprises 1-ethyl-3-methylimidazolium-dicyanoamide or 1-butylpyridinium-dicyanoamide.